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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/664,942	09/19/2000	Christine A. Smith	IL-10623	5232

7590 08/20/2003

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EXAMINER

ZIMMERMAN, GLENN

ART UNIT

PAPER NUMBER

2879

DATE MAILED: 08/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/664,942

Applicant(s)

SMITH ET AL.

Examiner

Glenn Zimmerman

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 14-28 and 45-53 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15-28 and 45-53 is/are allowed.
- 6) ☒ Claim(s) 14 is/are rejected.
- 7) ☒ Claim(s) 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Amendment*

Amendment, filed on June 12, 2003, has been entered and acknowledged by the examiner.

### *Claim Objections*

Claim 15 is objected to because of the following informalities: In claim 15 line 5, the examiner suggests changing "pre-processcomposite" to - pre-process composite- . Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 14 is rejected under 35 U.S.C. 102(b) as being anticipated by Smith et al. 98/XThE10.

Regarding claim 14, Smith et al. disclose a material system of claim 1.

Where claim 1 states a method comprising: directing an energy beam (**page 3 line 3 laser annealing**) at a pre-processed composite material (**sample s Z1, Z2 or Z3; page 2 line 12**) having a matrix containing a plurality of nanocrystals and a plurality of

traps (**page 2 line 18**) to reduce the size of the plurality of nanocrystals and the number of plurality of traps (**page 3 lines 1-10**) to produce a post-processed composite material.

As to limitation directing an energy beam to reduce the size of the plurality of nanocrystals in claim 14, it is the process step incorporated into which renders the claim as a product-by-process.

The courts have been holding that: “-In spite of the fact that a product-by-process claim may recite only process limitation, it is the product which is covered by the claim and not the recited process steps- - . (In re Hughes, 182 USPQ 106) - -“. Also - - Patentability of a claim to a product does not rest merely on a difference in the method by which that product is made. Rather, it is the product itself which must be new and unobvious. (In re Pilkington, 162 USPQ 147) - -.” Accordingly, “- - a rejection based on 35 U.S. C. section 102 or alternatively on 35 U.S. C. section 103 of the statute is eminently fair and acceptable.” (In re Brown and Saffer, 173 USPQ 685 and 688). - - The determination of the patentability of product-by-process claim is based on the product itself rather than on the process by which the product is made- -. In re Thrope, 777 F. 2d 695, 227 USPQ 964 (Fed. Cir. 1985).

As such, no patentable weight is given to process steps recited in claim 14.

### ***Allowable Subject Matter***

Claims 15-28 and 45-53 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 15, the following is an examiner's statement of reasons for allowance: The prior art of record neither shows nor suggests a material system including the combination of all the limitations as set forth in claim 15, and specifically directing an energy beam at the pre-process composite material to reduce the size of the plurality of nanocrystals and to reduce the number of the plurality of traps to produce a post-process composite material capable of white light emission when fluoresced could not be found elsewhere in prior art.

### ***Response to Arguments***

Applicant's arguments filed on June 12, 2003 have been fully considered but they are not persuasive. The applicants assert that "to reduce the size of the plurality of nanocrystals" is not disclosed in Smith et al. The examiner notes that the particular claim of interest claim 14 is not a method of manufacturing claim but a product claim. Processes are not given patentable weight in product claims, and the particular limitation of concern communicated above is a process MPEP 2113.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Glenn Zimmerman whose telephone number is (703) 308-8991. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (703) 305-4794. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is n/a.

  
Glenn Zimmerman

  
Joseph Williams